

Permit No.: AK-003865-2

United States Environmental Protection Agency
Region 10
1200 Sixth Avenue
Seattle, Washington 98101

AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Clean Water Act, 33 U.S.C. §1251 et seq., as amended by the Water Quality Act of 1987, P.L. 100-4, the "Act",

COMINCO ALASKA, INC.
(Red Dog Mine)

is authorized to discharge 1) treated wastewater through Outfall 001 at latitude of 68° 4' 17" and longitude of 162° 52' 5" to receiving water named Middle Fork Red Dog Creek, 2) treated construction camp site wastewater through Outfall 002 at latitude of 68° 1' 45" and longitude of 162° 54' 56" to the tundra, and 3) storm water in accordance with discharge point(s), effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective August 28, 1998

This permit and the authorization to discharge shall expire at midnight, August 28, 2003

Signed this 29th day of July, 1998.

/s/ Roger K. Mochnick, Acting
Director, Office of Water, Region 10
U.S. Environmental Protection Agency

This permit modification shall become effective August 22, 2003.

Signed this 17th day of July, 2003

Randall F. Smith
Director, Office of Water, Region 10
U.S. Environmental Protection Agency

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I. LIMITATIONS AND MONITORING REQUIREMENTS

A. Outfall 001 Limitations and Monitoring Requirements.

During the period beginning on the effective date of this permit and lasting through the expiration date, the permittee is authorized to discharge effluent from Outfall 001 into Middle Fork Red Dog Creek, provided the following effluent limits and monitoring requirements are met:

1.

Parameter	Daily Maximum	Monthly Average	Weekly Average	Sample Frequency	Sample Type ¹
Cadmium, total recoverable, µg/L	3.4	2.0	---	1/week	24 hour composite
Copper, total recoverable, µg/L	43.7	15.1	---	1/week	24 hour composite
Chromium, total recoverable, µg/L	---	---	---	1/week	24 hour composite
Lead, total recoverable, µg/L	19.6	8.1	---	1/week	24 hour composite
Manganese, total recoverable, µg/L	---	---	---	1/week	24 hour composite
Mercury, total, µg/L	0.02	0.01	---	1/month	24 hour composite
Nickel, total recoverable, µg/L	---	---	---	1/week	24 hour composite
Selenium, total recoverable, µg/L	5.6	4.9	---	1/week	24 hour composite
Zinc, total recoverable, µg/L	257.3	119.6	---	1/week	24 hour composite
Total Suspended Solids, TSS, mg/L	30.0	20.0	---	1/week	24 hour composite
Total Dissolved Solids, TDS, mg/L	See Part I.A.8				
Cyanide, total, µg/L	9.0	4.0	---	1/week	Grab
Fecal Coliform, #/100 ml	---	200	400	1/ 2 months	24 hour composite
Aluminum, total recoverable, µg/L	---	---	---	1/month	24 hour composite
Iron, total recoverable, µg/L	---	---	---	1/month	24 hour composite
Silver, total recoverable, µg/L	---	---	---	1/month	24 hour composite
Total Residual Chlorine, mg/L	---	---	---	1/month	Grab
Biochemical Oxygen Demand, mg/L	---	---	---	1/month	24 hour composite
Total Ammonia as N, mg/L	---	---	---	1/week	24 hour composite
Organic Priority Pollutant Scan ² , µg/L	---	---	---	see note 2	24 hour composite
Turbidity, NTU	---	---	---	1/week	24 hour composite
Temperature, °C	---	---	---	daily	Grab
Hardness, mg/L as CaCO ₃	---	---	---	1/week	24 hour composite
Cumulative Flow, gallons	See Part I.A.2.		---	---	Continuous Recording
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Parameter	Daily Maximum	Monthly Average	Weekly Average	Sample Frequency	Sample Type ¹
Whole Effluent Toxicity, TUc	12.2	9.7	---	1/month	See Part H
1. Effluent samples collected shall be representative of the effluent discharged without dilution from or contact with any outside sources. Results of analyses conducted under Part I.A.1. of this permit shall be submitted monthly on the discharge monitoring report. 2. Volatile organics shall be monitored using EPA analytical method 624, semi-volatile organics shall be monitored using EPA analytical method 625. Testing shall be conducted once in May, July, and September.					

2. The effluent pH from Outfall 001 shall be within the range of 6.0-10.5 standard units. Monitoring for pH shall occur once per week.
3. The maximum cumulative flow discharged from Outfall 001 shall not exceed 2.418 billion gallons from January 1 through December 31 every year.

The permittee shall report the cumulative flow discharged from Outfall 001 for that year to EPA, the Alaska Department of Environmental Conservation (ADEC), and the Alaska Department of Fish and Game (AK F&G) on the discharge monitoring report (DMR) each month. For example, if the permittee discharges 1 million gallons from Outfall 001 in January 1998 and 2 million gallons in February 1998, the February DMR shall state a cumulative flow discharged from Outfall 001 of 3 million gallons (1 million + 2 million = 3 million). In addition, the permittee shall report the total volume discharged each month.

4. There shall be no discharge of floating solids or oily wastes which produce a sheen on the surface of the receiving water.
5. Additional Monitoring and Reporting Requirements:
 - a. The permittee shall conduct analyses using analytical methods approved in 40 CFR §136.
 - b. At a minimum, analytical methods should achieve the following method detection limits:

Parameter	Method Detection Limit ¹
Aluminum, total recoverable	20 µg/L
Cadmium, total recoverable	.1 µg/L
Chromium, total recoverable	1 µg/L
Copper, total recoverable	1 µg/L
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Parameter	Method Detection Limit
Iron, total recoverable	30 µg/L
Cyanide, total	3 µg/L
Lead, total recoverable	.08 µg/L
Manganese, total recoverable	1 µg/L
Mercury, total	.2 µg/L
Nickel, total recoverable	5 µg/L
Selenium, total recoverable	2 µg/L
Silver, total recoverable	2 µg/L
Zinc, total recoverable	2 µg/L
BOD ₅	8 mg/L
Total residual chlorine	10 µg/L
Total ammonia as N	10 µg/l
1. The permittee may request less restrictive method detection limits for ambient monitoring. The request shall be submitted to EPA in writing, and is subject to EPA approval.	

- c. As part of the development of the Quality Assurance Project Plan (see Part I.I.1.b) the permittee shall specify the analytical test method that will be used to achieve each method detection limit.
- d. Effluent limits for cyanide, mercury, and selenium are not quantifiable using EPA approved analytical methods. EPA will use the following Interim Minimum Levels as the compliance evaluation level for these parameters.

Parameter	Interim Minimum Level
Cyanide	9 µg/L
Mercury	.5 µg/L
Selenium	6 µg/L

- e. For purposes of reporting on the Discharge Monitoring Report (DMR), if an analytical value is "less than the method detection level, the permittee shall report "less than [numerical method detection limit]" on the DMR. For example, if the laboratory reports "not detected" for a sample, and states that the MDL is "5 µg/L" then the permittee shall report "< 5 µg/L" on the DMR.

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4. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the Act, any substances or parameters at any location.

III. COMPLIANCE RESPONSIBILITIES

- A. Duty to Comply. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. The permittee shall give advance notice to the Director and ADEC of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- B. Penalties for Violations of Permit Conditions.
 1. Civil Penalty. The Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act shall be subject to a civil penalty, not to exceed \$25,000 per day for each violation.
 2. Criminal Penalties:
 - a. Negligent Violations. The Act provides that any person who negligently violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act shall be punished by a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than 1 year, or by both.
 - b. Knowing Violations. The Act provides that any person who knowingly violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act shall be punished by a fine of not less than \$5,000 nor more than \$50,000 per day of violation, or by imprisonment for not more than 3 years, or by both.
 - c. Knowing Endangerment. The Act provides that any person who knowingly violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000 or imprisonment of not more than 15 years, or both. A person which is an organization shall, upon conviction of violating this subparagraph, be subject to a fine of not more than \$1,000,000.

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